

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated in the below listing of claims that will replace all prior versions and listings of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims:

1. (Currently Amended) An operation-processing device for performing operation processing based on an arbitrary operation program, said device comprising:

a register array having a plurality of registers each for holding an arbitrary value based on a write address and a write control signal and for outputting the held value to a signal line based on a read address;

an operation portion having an input coupled to said signal line independent of an intervening addressable register such that a value read from said register array to said signal line based on a read address is capable of being provided to said input without further addressing a register, the operation portion being operable for performing an operation on said value read from said register array to said signal line;

an instruction-decoding portion for decoding an operation instruction from an operation program for operating said operation portion, wherein said operation instruction includes at least one bit indicative of an access method; and

an instruction-execution-controlling portion for controlling said register array and the operation portion in order to execute an operation instruction decoded by said instruction-decoding portion,

wherein, in the event said at least one bit is indicative of a first access method, then said instruction-execution-controlling portion is operable for (i) selecting one of said registers of the

register array based on said operation instruction, and (ii) based on a value held by said selected register, and without reference to a value previously loaded into another register, performing register-to-register addressing processing for selecting another of said registers of said register array; and

wherein, in the event said at least one bit is indicative of a second access method, then said instruction-execution-controlling portion is operable for selecting one of said registers based on said operation instruction, and not performing register-to-register addressing processing for selecting, based on a value held by said selected register, another of said registers of said register array.

2. (Previously Presented) The operation-processing device according to claim 1, further comprising a read only memory in which said operation program is stored.

3. (Previously Presented) The operation-processing device according to claim 1, wherein said operation program includes an operation instruction to perform the register-to-register addressing processing.

4. (Previously Presented) The operation-processing device according to claim 2, wherein said register array and the read only memory are each comprised of a plurality of memory cells;

wherein said operation portion, the instruction-decoding portion, and the instruction-execution-controlling portion are comprised of a plurality of arithmetic/logic operation elements; and

wherein said memory cells and the arithmetic/logic operation elements comprise a programmable logic device and are formed on an identical semiconductor chip.

5. (Previously Presented) The operation-processing device according to claim 1, wherein said instruction execution-controlling portion comprises:

a first selector for selecting any one of a read execution address to select said selected register and a read address to select said selected register again; and

a second selector for selecting any one of a write execution address to select said selected register and a write address to select said selected register again.

6-13 (Canceled).

14. (Currently Amended) An operation-processing method for performing operation processing based on an arbitrary operation program, said method comprising :

accessing a register array having a plurality of registers, each for holding an arbitrary value based on a write address and a write control signal and for outputting the held value to an input of an operation portion based on a read address without further addressing a register;

decoding an operation instruction from said operation program, said operation instruction including at least one bit indicative of an access method;

selecting one of said registers of said register array based on said operation instruction;

in the event that said at least one bit is indicative of a first access method, (i) performing register-to-register addressing processing for selecting, based on a value held by said selected register, and without reference to a value previously loaded into another register, another of said

registers of said register array, and (ii) performing with said operation portion an operation on a value held by said selected another register; and

in the event that said at least one bit is indicative of a second access method, performing with said operation portion an operation on a value held by said selected register, and not performing register-to-register addressing processing for selecting, based on a value held by said selected register, another of said registers of said register array.

15. (Previously Presented) The operation-processing method according to claim 14, wherein a result of said operation is stored in the register selected on the basis of the value held by said selected another register.

16. (Previously Presented) The operation-processing method according to claim 14, wherein said operation program includes an operation instruction to perform said register-to-register addressing processing.

17-25 (Canceled).

26. (Previously Presented) The operation-processing device according to claim 1, wherein said input comprises at least one input signal line that is coupled to said signal line via a latch.